

WHAT IS CLAIMED IS:

1. An image forming apparatus which forms an image on a recording medium comprising:

an image input section which inputs an image,

5 a size selection section which selects a size of a recording medium on which an image input by the image input section is formed,

a toner image forming section which forms a toner image of the image input by the image input section on the recording medium with the size selected by the size selection section,

a fixing section having a fixing member which heats and fixes the toner image formed on the recording medium by the toner image forming section onto the recording medium, and a heater divided into a plurality of systems used to respectively heat a plurality of divided regions of the fixing member, and

15 a control section which determines allocation power amounts to be supplied to the respective systems of the heater according to the size of the recording medium selected by the size selection section and supplies the allocation power amounts to the respective systems of the heater when the fixing member is required to be warmed up.

25 2. The image forming apparatus according to claim 1, wherein the heater is an induction heater which heats the fixing member by induction heating

according to the power supplied from the control section.

3. The image forming apparatus according to claim 1, wherein the control section supplies power
5 only to one of the plurality of systems of the heater which corresponds to a recording medium of the size selected by the size selection section at the warm-up time.

4. The image forming apparatus according to
10 claim 1, which further comprises an image rearranging section used to change an output order of images and in which the image input section sequentially inputs a plurality of images, the size selection section selects the size of a recording medium for each of the images
15 input by the image input section, the image rearranging section rearranges the plurality of images input by the image input section in order of small size of the recording medium selected by the size selection section, and the control section determines allocation
20 of power amounts to be supplied to the respective systems of the heater based on the order of the images rearranged by the image rearranging section.

5. The image forming apparatus according to claim 4, wherein the heater includes a first system
25 which heats a first region of the fixing member to perform a fixing process with respect to a recording medium of a first size and a second system which heats

a second region of the fixing member to perform a fixing process with respect to a recording medium of a second size larger than the recording medium of the first size, the size selection section selects one of the recording medium of the first size and the recording medium of the second size larger than the recording medium of the first size for each of the images input by the image input section, the image rearranging section rearranges the order of the images input by the image input section to put the image to be formed on the recording medium of the first size before the image to be formed on the recording medium of the second size, and the control section determines allocation of a power amount to be supplied to the first system of the heater and a power amount to be supplied to the second system of the heater to first set the temperature of the first region to the fixing temperature and then set the temperature of the second region to the fixing temperature.

6. The image forming apparatus according to claim 5, wherein the toner image forming section forms toner images of the images on recording media of sizes selected by the size selection section in an order rearranged by the image rearranging section and sequentially supplies the recording media having the toner images formed thereon to the fixing section, and the control section determines allocation of a power

amount to be supplied to the first system of the heater
and a power amount to be supplied to the second system
thereof to set the temperature of the second region to
the fixing temperature before the recording medium of
5 the second size on which the toner image is formed by
the toner image forming section is fed to the fixing
section.

7. The image forming apparatus according to
claim 6, wherein the control section determines
10 allocation of the power amount to be supplied to the
first system of the heater and the power amount to be
supplied to the second system of the heater based on
the number of images for which the recording media of
the first size selected by the size selection section
15 are used.

8. The image forming apparatus according to
claim 4, wherein the control section determines power
amounts to be continuously supplied to the respective
systems of the heater by allocating preset power
20 amounts to the respective systems of the heater based
on the order of images rearranged by the image
rearranging section.

9. The image forming apparatus according to
claim 4, wherein the control section determines periods
25 of time during which preset power amounts are supplied
to the respective systems of the heater based on the
order of images rearranged by the image rearranging

section.

10. The image forming apparatus according to claim 4, wherein the control section determines power amounts to be supplied to the respective systems of the heater and periods of time during which the preset
5 power amounts are supplied to the respective systems of the heater based on the order of images rearranged by the image rearranging section.

11. A control method for an image forming
10 apparatus which includes an image input section which inputs an image, a toner image forming section which forms a toner image of the image input by the image input section on a recording medium with a selected one of various sizes, and a fixing section having a fixing
15 member which heats and fixes the toner image formed on the recording medium by the toner image forming section onto the recording medium and a heater divided into a plurality of systems used to respectively heat a plurality of divided regions of the fixing member,
20 comprising:

inputting an image by use of the image input section,

selecting the size of a recording medium on which the image input by the image input section is formed,
25 and

determining allocation power amounts to be supplied to the respective systems of the heater

according to the selected size of the recording medium
and supplying the power amounts allocated to the
respective systems of the heater to the respective
systems of the heater when the fixing member is
5 required to be warmed up.

12. The method for the image forming apparatus
according to claim 11, further comprising supplying
power only to a system which corresponds to a recording
medium of the size selected by the size selection
10 section among the plurality of systems of the heater at
the warm-up time.

13. A control method for an image forming
apparatus which includes an image input section which
inputs an image, a toner image forming section which
15 forms a toner image of the image input by the image
input section on a recording medium with a selected one
of various sizes, and a fixing section having a fixing
member which heats and fixes the toner image formed on
the recording medium by the toner image forming section
20 onto the recording medium and a heater divided into a
plurality of systems used to respectively heat a
plurality of divided regions of the fixing member,
comprising:

sequentially inputting a plurality of images by
25 use of the image input section,

selecting sizes of recording media for the images
input by the image input section,

rearranging the images input by the image input section in order of small size of the recording medium, determining allocation power amounts to be supplied to the respective systems of the heater based on the order of the images rearranged by rearranging the images, and

supplying the power amounts allocated to the respective systems of the heater to the respective systems of the heater.

10 14. The method for the image forming apparatus according to claim 13, wherein the heater includes a first system which heats a first region of the fixing member to perform a fixing process with respect to a recording medium of a first size and a second system
15 which heats a second region of the fixing member to perform a fixing process with respect to a recording medium of a second size larger than the recording medium of the first size, the selection of the size of the recording medium being to select one of the
20 recording medium of the first size and the recording medium of the second size for each of the images input by the image input section, the image rearranging being to rearrange the order of the images input by the image input section to put the image for which the recording
25 medium of the first size is selected before the image for which the recording medium of the second size is selected, and allocation of a power amount to be

supplied to the first system of the heater and a power amount to be supplied to the second system of the heater is determined to first set the temperature of the first region of the fixing member to the fixing temperature and then set the temperature of the second region of the fixing member to the fixing temperature.

15. The method for the image forming apparatus according to claim 14, wherein allocation of the power amount to be supplied to the first system of the heater and the power amount to be supplied to the second system of the heater is determined to set the temperature of the second region of the fixing member to the fixing temperature after the first region of the fixing member was first set to the fixing temperature and before the recording medium of the second size on which the toner image is formed by the toner image forming section is fed to the fixing section.

16. The method for the image forming apparatus according to claim 15, wherein allocation of the power amount to be supplied to the first system of the heater and the power amount to be supplied to the second system of the heater is determined based on the number of recording media of the first size selected.

17. The method for the image forming apparatus according to claim 13, wherein allocation of the power amount to be supplied to the first system of the heater and the power amount to be supplied to the second

system of the heater is determined by allocating power amounts to be continuously supplied to the respective systems of the heater by use of a preset power amount based on the order of the images rearranged by the image rearranging.

18. The method for the image forming apparatus according to claim 13, wherein allocation of the power amount to be supplied to the first system of the heater and the power amount to be supplied to the second system of the heater is determined by allocating periods of time in which the preset power amounts are supplied to the respective systems of the heater based on the order of the images rearranged by the image rearranging.

19. The method for the image forming apparatus according to claim 13, wherein allocation of the power amount to be supplied to the first system of the heater and the power amount to be supplied to the second system of the heater is determined by allocating power amounts to be supplied to the respective systems of the heater and periods of time in which the preset power amounts are supplied to the respective systems of the heater based on the order of the images rearranged by the image rearranging.